

## ESI 4-way splitter



- High quality 4-way installation splitter
- ModemSafe™ surge protection and intermodulation reduction solution
- IngressSafe™ - unique passive ingress reduction technology
- High return loss
- CPD Safe™ - NiSn plated housing
- Easy to install - compact and stackable in-line model
- 7 mm stand-off space to fit cable underneath
- Grounding block option available
- Exceeds EN Class A screening requirements



### Overview

Products within the Ecoline range excel both in electrical and mechanical performance. Though designed for use within indoor environments, they are also specified for use within street-side plant. The products are easy to install with a compact housing and some models are stackable. All F-connector contacts meet the SCTE standards (ANSI SCTE 02 2006). The material of the inner spring has been designed for connecting coax cables with an inner core of 0.56 to 1.30 mm. It retains this elasticity and provides effective clamping force even when varying thicknesses of inner conductor are connected in succession.

The intermodulation performance, which is an important factor in high level return path signals, has been greatly improved through a newly developed ferrite and specially designed circuits. The high frequency shielding exceeds Class A requirements (EN-50083-2:2006) over the whole frequency range from 5 MHz to 1000 MHz.

#### Ingress Safe

Our patented Ingress Safe technology uses a phase cancellation technique to considerably reduce ingress created within the home. It has no adverse effect on the CATV spectrum and is transparent to the forward and reverse path signals.

- Significantly reduces noise on CATV networks, improving network performance
- Field tests show Ingress Safe units in the distribution network can deliver improvement in the carrier to noise ratio that averages from between 3 dB and 12 dB, depending on the network topology
- Prevents or delays the need to deploy technicians to rectify faults caused by the cumulative effects of ingress on network performance and customer service.

#### Modem Safe

Modem Safe is a highly effective surge protection solution for sensitive network and in-home CPE. Based on passive circuits, the technology does not rely on discharge tubes, extending the lifespan of the solution.

- Blocks high and low voltage pulses and unwanted DC voltages
- Prevents internal ferrites within the product from becoming magnetised (avoiding deterioration in the performance of CPE)
- Drives fewer reported faults
- Improves customer service
- Reduces truck rolls

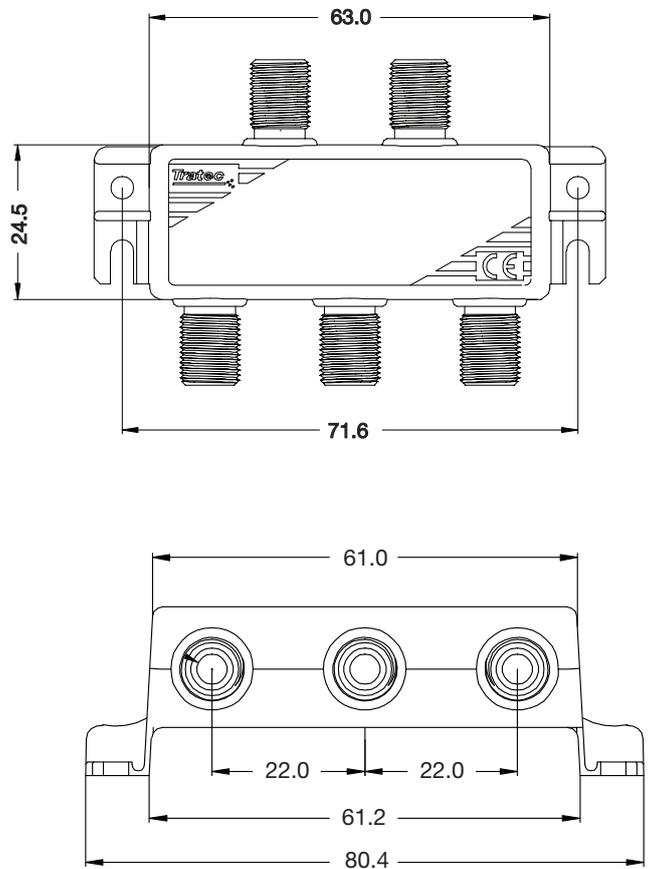
#### CPD Safe

CPD (Common Path Distortion) is well known for producing signal interference on networks. It is caused by electrolytic corrosion or the oxidation of dissimilar metals when in close contact. CPD Safe technology protects against CPD.

- Removes a primary cause of CPD
- Reduces signal interference on the network
- Drives fewer reported faults
- Reduces truck rolls
- Improves customer service

## Specifications

Insertion loss (dB)	In to Out	MHz	4-Way	
			Typ	Max
Insertion loss (dB)	In to Out 1&2	5-65	6.9	7.3
		65-300	6.8	7.2
		300-550	6.8	7.2
		550-750	7.0	7.4
		750-862	7.5	7.9
		862-1006	7.5	7.9
	In to Out 3&4	5-65	7.3	7.7
		65-300	7.2	7.6
		300-550	7.2	7.6
		550-750	7.4	7.8
Return loss (dB, typ)	All ports	5-15	28.2	
		15-550	27.5	
		550-1006	21.5	
Isolation	Out to Out		Typ	Min
		5-65	46.3	30.0
		65-550	35.9	24.0
Screening efficiency (dB) <sup>1</sup>		5-300	>95	
		300-470	>90	
		470-950	>85	
		950-1000	>85	
Shielding effectiveness (dBi) <sup>2</sup>		5-300	Avg 130	
		300-1000	Avg 120	
Intermodulation p+q (dBC, min) <sup>3</sup>			-115.0	
Ingress Safe	Out		Ports 3&4	
Surge Class conformance <sup>4</sup>	All ports		1 kV 1.2/50µs	
Connectors	All ports		F-female	
Plating Material	Housing		NiSn plated zinc die-cast	
	F-spring		Silver plated beryllium copper	
Impedance (Ohm, typ)			75	
Dimensions (mm)	L x H x D		80.4x49.3x15.5	
Equipment Approval	CE			



### Remarks

- 1 Tested according to EN 50083-2 2006
- 2 Tested according to SCTE IPS-TP-403
- 3 Two carriers (50 & 55MHz), out to in, @ 120dBµV, after 10 pulses (25V/1,2µS rise time/500µS duration) at all ports  
Two carriers (50 & 55MHz), out to in, @ 120dBµV, after 1 pulse 1KV (1,2µS risetime/50µS fall time) at Input.
- 4 Tested according to IEC 61000-4-5 2005  
DC power blocking all ports

### Ordering information

Item Name	Article number
ESI-04N	10430092
ESI-04N-G	19002620

Measurements taken at room temperature

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